

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **08-036180**
(43)Date of publication of application : **06.02.1996**

(51)Int.Cl. G02F 1/1335
G02B 27/18
G02F 1/13
G03B 21/14
H04N 5/74
H04N 9/31

(21)Application number : **07-058918** (71)Applicant : **MATSUSHITA ELECTRIC IND CO LTD**

(22)Date of filing : **17.03.1995** (72)Inventor : **MASUMOTO YOSHIHIRO**

(30)Priority

Priority number : **06101076** Priority date : **16.05.1994** Priority country : **JP**

(54) PROJECTION TYPE DISPLAY DEVICE

(57)Abstract:

PURPOSE: To utilize plural lamps and to easily obtain an inexpensive and compact light source whose light output is large by providing the light source with two or more light emission bodies, a condensing means and a light transmission means superimposing respective luminous flux on an optical picture.

CONSTITUTION: Light emitted from the light emission bodies of the metal halide lamps 1A and 1B of condensing optical systems 1 and 2 is condensed by parabolic mirrors 1B and 2B so as to form the luminous flux proceeding almost along an optical axis 6(7). By the first lens 11 of a light transmission optical system 3, the light from the condensing optical system is converged near the center of the main plane surface of a second lens 13. Such an action is similarly executed by a first lens 12. By a beam synthesizing lens 15, the optical axis 6A and a transversal axis 8 are crossed on the center of an effective display area and such an action is similarly executed as for the optical axis 7A. Besides, the real image of an object near the main plane surface of the lens 11 is formed near the effective display area by the lenses 13 and 15 and the real image of the lens 12 is similarly formed near the same area by the lenses 14 and 15.

